

## ABSTRACT

A heat generation amount estimation unit acquires the number of sub processors currently in operation, acquires the current operating frequency, and estimates the amount of heat generation after a period  $\Delta t$ . A temperature control unit estimates the temperature after the period  $\Delta t$  based on the current temperature input from a temperature sensor and the amount of heat generation estimated, and compares it with a predetermined threshold temperature. If the predetermined threshold temperature is reached, the temperature control unit acquires the number of sub processors available in parallel after the period  $\Delta t$  from a task management unit, and consults a performance table to determine which operation point to shift to. A sub processor control unit and a frequency control unit switch to the number of sub processors in operation and the operating frequency accordingly. The performance table lists possible operation points in order of performance.